UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
STRANGE, AARON N

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _14 March 2007_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _1-22_ is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-22_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _20070314_.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

1. The Examiner would like to note that the present application has been reassigned to a new Examiner.

2. In the interest of expedited prosecution, the Examiner would like to recommend conducting an interview prior to filing a response to the present Office action. The Examiner feels that an interview would help foster a mutual understanding of the respective positions of Applicant and the Examiner, and assist in the identification of allowable subject matter and/or issues for appeal. If Applicant agrees that an interview would be beneficial, he/she is encouraged to contact the Examiner to schedule one.

Response to Arguments

3. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-11 and 22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

6.   Claim 1 is directed to a system comprising a "device interface", a "Module

manager" and a plurality of modules. The specification describes each of these

elements as a "mail server" (¶23), a "lightweight component" that is "multithreaded"

(¶27) and "JAVA-based" (¶34), respectively. Based on the cited portions of the

specification, one of ordinary skill in the art would have understood claim 1 as being

directed to at least some software-only embodiments. Since the claim is not limited to

statutory subject matter, it is non-statutory.

7.   Claim 22 is directed to a "module manager" including a list and a module loading

function. The specification describe the "module manager" as a "multi-threaded"

"lightweight component" (¶37). Based on the cited portions of the specification, one of

ordinary skill in the art would have understood claim 22 as being directed to at least

some software-only embodiment. Since the claim is not limited to statutory subject

matter, it is non-statutory.

8.   All claims not individually rejected are rejected by virtue of their dependency from

the above claims.

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10.   Claims 1, 3-5, 8-10, 12, 14, 15, 17, 19, & 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bavadekar (US 2003/10009571) in view of Aiken, Jr. (US 2002/0143965) further in view of Stumm (US 5,768,528) further in view of Noble (US 5,978,842)..

11.   In considering independent claim 1, Bavadekar discloses a distributed information processing system, comprising:

a client device interface (fig. 3,B 206, "HTTP proxy server") adapted to receive requests for a type of information (messaging services)([0068] from a plurality of remote devices (clients)(fig. 3B, 200A & 200B)(fig. 6B, steps 606 & 620, [0101]);

a stateless module manager (fig. 3B, 208, "web server") adapted to receive and route said requests from said client device interface (fig. 6B, steps 624 & 626, [0101]-[0102]); and

a plurality of information modules (fig. 3B, 202, "brokers" [0080]), wherein

said information modules register with said stateless module manager and wherein the module manager routes said requests to an appropriate one of said plurality of information modules in accordance with the type of information requested (connection requests are forwarded to the appropriate broker)([0030-0031] & [0080]);

wherein said client device interface is adapted to receive on-demand requests (clients may establish sessions) ([0080])

However, Bavadekar does not specifically disclose handling service collisions by having one information module claim the requests and own them afterwards such that only that information module processes the requests or that the client device interface is adapted to receive scheduled requests or event driven requests.

Aiken teaches allowing servers to "claim" client requests to ensure that the other requests from the same client session (using the same port) will be handled by the claiming server, preventing the requests from being handled by a different server as a result of load balancing (¶43 & 53). This would have been an advantageous addition to the system disclosed by Bavadekar since it would have provided a persistent relationship between a particular client session and the broker, permitting session information such as user login credentials, commonly used in messaging systems, to be saved.

In similar field of information distribution, Stumm teaches a client device sending a subscription request when a user desires a scheduled responses from a subscription provider (col.5 lines 25-45) and Noble teaches a user to send an event driven request to receive information when criteria are met (client is notified when particular web pages have changed)(col. 5, ll. 21-42). Support for these types of information requests would have been an advantageous addition to Bavadekar since it would have given clients increased flexibility when requesting information, allowing them to be notified of changes periodically or when different events occur,

In view of the combined teachings of Bavadekar, Aiken, Stumm and Noble, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow servers to "claim" client requests and to allow clients to request information on a

subscription or event-triggered basis, since it would have permitted client session

information to be maintained and allows clients to request information in a more flexible

manner that eliminates the need to continuously poll the brokers for new information.

12.   In referencing claim 3, Bavadekar discloses:

• the appropriate one of said plurality of information modules (brokers) generates a

response (message formatted as a "replies", [0004]) that is returned to said stateless

module manager (Web server), and wherein said stateless module manager routes said

response to said client interface device for delivery to a requestor (fig. 713, steps 720, 726,

& 732,[0109]-[0110]).

13.   In considering claims 4, 14, & 19, Bavadekar discloses:

• requests and responses are formatted as Java objects ([0009],[0014], [0073]).

14.   In considering claims 5, 15, & 20, Bavadekar discloses:

• requests are made to said stateless module manager (Web server) as one of a

synchronous or asynchronous request, wherein synchronous requests are handled on a

first-in-first-out basis, and wherein asynchronous requests are processed and returned

when completed ([0026],[0069]).

15.   In referencing claim 8, Bavadekar discloses:

• information modules are loaded locally and remotely, wherein local modules reside on a

same physical device as said stateless module manager, and wherein remote modules

are located on other devices [0075].

16.   In referencing claim 9, Bavadekar discloses:

• communication between locally loaded modules and said stateless module manager is

accomplished via memory calls, object inheritance or inter-process communication [0075].

17.   In referencing claim 10, Bavadekar discloses:

• communication between remotely loaded modules and said stateless module manager

are accomplished via TCP/IP sockets ([0033],[0081]).

18.   Claims 12 and 17 are rejected under the same rationale as claim 1, since they

recite substantially identical subject matter. Any differences between the claims do not

result in patentably distinct claims and all of the limitations are taught by the above cited

art.

19.   Claims 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bavadekar

(US 2003/10009571) in view of Aiken, Jr. (US 2002/0143965) further in view of Stumm

(US 5,768,528) further in view of Noble (US 5,978,842) further in view of Official Notice.

20.   In considering claim 2, while Bavadekar fails to specifically disclose that the

requests are formatted as an HTML or plain-text formatted e-mail, Bavadekar does

disclose that the requests are formatted using "messaging protocols".

The Examiner takes Official Notice that e-mail is a messaging protocol that was old

and well known in the art at the time the invention was made. One of ordinary skill in the

art would have been able to use e-mail as the messaging protocol in Bavadekar, and e-

mail would have been nothing more than a predictable variation of the many types of

messaging protocols that would have been readily available to one of ordinary skill in the

art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to use email as the messaging protocol in Bavadekar, since it

would have allowed clients to make requests using a widely available protocol.

21.   Claims 6, 16, 21 and 22 is rejected under 35 U.S.C. 103(a) as being unpatentable

over Bavadekar (US 2003/10009571) in view of Aiken, Jr. (US 2002/0143965) further in

view of Stumm (US 5,768,528) further in view of Noble (US 5,978,842) further in view of

Burd et al. (US 6,757,900).

22.   In considering claims 6, 16 & 21, while Bavadekar inherently discloses a stateless

module manager, Bavadekar does not explicitly disclose creating and discarding instances

of the module manager. Nonetheless, in analogous art, Burd discloses a stateless module

manager adapted to receive requests for electronic information from remote devices [fig. 2,
steps 200-202, col. 4, lines 41-48]. Burd further discloses:

> instances of said stateless module manager are created each time a new request is
received and discarded after the request has been handled [fig. 2, step 212, col. 8, lines
44-65].

Given the teachings of Burd, at the time of the invention, it would have been
obvious to one of ordinary skill in the art to modify the system/method disclosed by
Bavadekar where instances of the stateless module manager are created each time a new
request is received and discarded after the request has been handled. The motivation, as
suggested by Burd, would be to clean up and close the connection after the request has
been handled [col. 15, lines 31-40].

23.   Claim 22 substantially corresponds to the combination of claims 1, 5 and 6, and is
rejected under the rationale set forth above for those claims. Any differences between the
claims do not result in patentably distinct claims and all of the limitations are taught by
the above cited art.

24.   Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bavadekar
(US 2003/10009571)in view of Aiken, Jr. (US 2002/0143965) further in view of Stumm (US
5,768,528) further in view of Noble (US 5,978,842) further in view of Hunt (US
2002/10087657).

25.   In referencing claim 7, while Baivadekar in view of Burd disclose stateless

instances of a module manager, Bavadekar in view of Burd do not explicitly disclose a

multi-threaded instance of a module manager. Nonetheless, in analogous art, Hunt

discloses a system (see fig. 4), comprising a stateless module manager (fig. 4, #4,

"server") adapted to receive requests from a remote device (fig. 4, #402) (fig. 6,[0048]).

Hunt further discloses:

        instances of said module manager are stateless and multi-threaded ([0033],

[0050]).

        Given the teachings of Hunt, at the time of the invention, it would have been

obvious to one of ordinary skill in the art to mcdify the system/method disclosed by

Bavadekar and Burd where instances of the stateless module manager multithreaded.

This would have been a desirable feature because multiple requests could be serviced

concurrently for improved efficiency.

26.   Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bavadekar

(US 2003/10009571)in view of Aiken, Jr. (US 2002/0143965) further in view of Stumm (US

5,768,528) further in view of Noble (US 5,978,842) further in view of Langseth et al. (US

6,741,980).

27.   In considering claim 11, while Bavadekar discloses a information modules,

Bavadekar does not explicitly disclose consulting a subscriber database. Nonetheless, in

analogous art, Langseth discloses a module manager adapted to receive request for

electronic information from a plurality of client devices [fig. 2A, col. 1, lines 12-23].

Langseth further discloses:

information is sent by said information modules (fig. 2A, "channels); and said

subscription database (fig. 2A, ;426) is consulted to determine to which clients the

information should be forwarded [col. 4, lines 7-15, col. 8, lines 30-36].

Given the teachings of Langseth, at the time of the invention, it would have been

obvious to one of ordinary skill in the art to modify the system/method disclosed by

Bavadekar where a subscriber database is consulted to determine to which clients the

information should be forwarded. The motivation, as suggested by Langseth, would have

been to forwarded information could be personalized to the client's desires [col. 4, lines 7-

15].

28.   Claims 13 & 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bavadekar (US 2003/10009571)in view of Aiken, Jr. (US 2002/0143965) further in view of

Stumm (US 5,768,528) further in view of Noble (US 5,978,842) further in view of Masters

et al. (US 6,374,300).

29.   In considering claims 13 & 18, Langseth implicitly discloses:

• maintaining a list of supported services provided by each of said information modules

[col. 7, lines 10-15, 45-50, col. 26, lines 26-39].

Both Bavadekar and Langseth do not explicitly disclose handling service collisions.

Nonetheless, in analogous art, Masters discloses a system for receiving and responding to

requests for electronic information (abstract). Masters further discloses:

handling service collisions if plural information modules (fig. 1A, #120, "node

servers") are capable of responding to said type of information such that only one

information module processes said request [fig. 2A, step 128, col. 7, lines 41-62].

Given the teachings of Masters, at the time of the invention, it would have been

obvious to one of ordinary skill in the art to modify the system/method disclosed by

Bavadekar and Langseth to handle service collisions of plural information modules. The

motivation as suggested by Masters, would be to load balance the request to the optimal

information module [col. 7, lines 41-62].

Conclusion

30.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to AARON STRANGE whose telephone number is

(571)272-3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron Strange/
Examiner, Art Unit 2153